

IC 77-2544

MEMORANDUM FOR: Director of Central Intelligence

FROM: 

SUBJECT: Background Information on the Naval
Postgraduate School

One of my staff visited the Naval Postgraduate School (NPS) early in November and examined its programs in the field of intelligence. I am forwarding his trip report to you (attached) in the expectation that it will be useful to you as background for your future visit to NPS.

STATINTL

Attachment:
Background Information on the
Naval Postgraduate School.



Distribution:

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(6 December 1977)



NAVAL POSTGRADUATE SCHOOL
NAVAL INTELLIGENCE CURRICULUM (825)
DECEMBER 1975

MA IN NATIONAL SECURITY AFFAIRS (NAVAL INTELLIGENCE, #825)
Approved For Release 2001/09/04 : CIA-RDP83M00171R001800110004-3

ACADEMIC SEQUENCES	QUARTER I	QUARTER II	QUARTER III	QUARTER IV	QUARTER V	QUARTER VI
Defense Technology	SE 2001 (4-0) Concepts of Environment Wave Propa- gations & Ocean Systems	SE 2002 (4-0) Concepts of Science & Engineering I	SE 2003 (4-0) Concepts of Science & Engineering II	SE 3004 (4-0) Survey of Milli- tary Technology: Concepts and Applications I	SE 3005 (4-0) Survey of Milli- tary Technology: Concepts and Applications II	SE 4006 (4-0) Seminar in Technological Assessment
National Security Affairs	GV 3262 (4-0) Theory & Prac- tice of Interna- tional Politics GV 3400 (4-0) Problems of Government & Security in the Soviet Union	GV 3061 (4-0) American National Secur- ity Policy	GV 3420 (4-0) Soviet Maritime & Naval Strategy	GV 3610 (5-0) Problems of Government & Security in East Asia & Pacific Ocean		GV 4061 (4-0) American National Security Objectives & Net Assessment
Analytical & Management	MA 2310 (5-3) Mathematics for Naval Intelligence I	MA 2311 (5-2) Mathematics for Naval Intelligence II GV/MN 3510 (4-0) Organizational Theory & Behavior	GV/OS 3062 (4-0) Intelligence Data Analysis OS 3227 (4-2) Operations Analysis for Naval Intel- ligence	GV/OS 4207 (4-0) Seminar in Analysis of Intelligence Problems GV 4063 (4-0) Naval Threat Analysis	OS 3184 (4-0) Management Information System for Naval Intel- ligence	
Electives					Elective (4-0)	Elective (4-0)
Research					GV 0810 (0-0) Thesis Research	GV 0810 (0-0) Thesis Research
Professional Survey	GV 0010 (0-2) Seminar in Naval Intel- ligence	GV 0010 (0-2) Seminar in Naval Intel- ligence	GV 0010 (0-2) Seminar in Naval Intel- ligence	GV 0010 (0-2) Seminar in Naval Intel- ligence	GV 0010 (0-2) Seminar in Naval Intel- ligence	GV 0010 (0-2) Seminar in Naval Intel- ligence

Total Hours

17-5

17-4

16-4

17-2

12-2

12-2

NAVAL INTELLIGENCE CURRICULUM (825)

Description:

The Naval Intelligence Curriculum is an interdisciplinary program focusing on the areas of defense technology, national security affairs, analytical and management problems applicable to the Naval Intelligence Community. Commencing with the second quarter of each academic year (late September), it proceeds for six quarters (18 months) and leads to a Master of Arts degree in National Security Affairs. It provides a broad graduate-level education supported by the following disciplines: mathematics, environmental science, physical science, electrical engineering, political science, public administration and operations research. The intelligence subspecialty code XX29P is awarded upon graduation.

The core courses are divided into the Defense Technology, National Security Affairs, and the Analytical and Management Sequence, which themselves are interdisciplinary. There is also a thesis requirement which must be completed prior to graduation. Thesis research efforts are supported by COMNAVINTCOM and students may select from topics submitted annually by naval intelligence agencies. The thesis research design must be submitted prior to the end of the third quarter in the program and a two week thesis research tour to Washington, D.C. or other areas of interest is included in the fourth quarter. A total of eight units are allocated in the fifth and sixth quarters to complete the thesis research. Students may also select courses from the elective list or take directed study in support of their research efforts.

Finally, the Naval Intelligence Seminar is scheduled on a non-credit basis throughout the curriculum. These hours are dedicated to guest speakers, field trips, and other professional development efforts including study of

the naval intelligence community and sharing of warfare specialty experiences. Initial material introduced in the seminar includes orientation on speed reading.

Qualification for Admission:

This unique curriculum affords the student an opportunity to pursue an interdisciplinary graduate program. Options available are designed to build on the various technological backgrounds of the students and permit concentration in fields of interest beyond core courses. Admission requirements are a college degree with a B average and college algebra or its equivalent. Of equal importance is demonstrated excellence in a warfare or restricted line specialty. Where an officer's fitness reports indicate consistent outstanding performance and obvious potential for promotion to senior rank, less than a B average will qualify for selection. All officers selected must be eligible for Special Intelligence access. Recipients of orders not having a current Special Background Investigation (SBI) (within four and one-half years), must submit the required request forms expeditiously in accordance with their PCS orders.

Degree Requirements:

1. A minimum of 44 quarter hours of graduate work, of which at least 12 quarter hours must be at the 4000 level. At least 20 hours must be in the area of national security affairs.
2. Completion of graduate courses in at least three different academic disciplines, including a 4000 level course in at least two of these disciplines.

3. Completion of an acceptable thesis in addition to the 44 quarter hours of course work.

4. Approval of the program by the Chairman of the Department of National Security Affairs.

DEFENSE TECHNOLOGY SEQUENCE

Sequence Description:

This sequence is designed to address the special problems of technical intelligence. It emphasizes technical literacy and the ability to communicate concerning technological and environmental problems with specialists at the non-mathematical level. It thus stresses vocabulary, inter-relationship of concepts, and a qualitative understanding of the trade-offs implicit in the design of military systems. While not emphasizing a quantitative approach, mathematical models are introduced where appropriate to reinforce the student's understanding of a concept and its physical application. Further, it seeks to provide a perspective that will assist assessment of the reliability and significance of technical and environmental data, as well as ensure a familiarity with available resources in these fields that may be applied to specific problems.

The sequence progresses from building technical vocabulary and qualitative understanding of basic science and engineering concepts to introduction to the general operating principles of technical military systems. Students with previous technical education may proceed to the applications courses. Two applications courses examine specific military systems such as weapons, sensors, communications, and electronic warfare. The strength, weakness and trade-offs associated with ship, submarine, and aircraft platform design are also included. Finally, new technological developments, weapons system acquisition and technological forecasting are pursued through student participation in seminar and practical exercise situations.

SE 2001 ENVIRONMENT, WAVE PROPAGATION AND OCEAN SYSTEMS (4-0)

Course Description:

This course is designed to develop an awareness of significant concepts and resources in the environmental sciences, and an understanding of the interaction between communications and surveillance systems. Topics from meteorology, oceanography and wave properties will be discussed which have bearing on electromagnetic wave propagation, ocean acoustics, and acoustic surveillance. Relevant material on ship design and construction will also be included.

Course Objectives:

1. This course introduces some of the basic vocabulary and information in environmental science, and wave propagation.
2. The student should be able to identify environmental effects which are applicable to intelligence problems, to obtain environmental data from data networks, and to appreciate the input of environmental experts to specific problems.
3. The student should be able to state the basic parameters of wave motion, be able to explain how they are related, and appreciate how geometrical and environmental factors influence the propagation of acoustic and electromagnetic waves.
4. The student should be able to state the fundamental propagation equations for acoustic and electromagnetic signals and explain the significance of each term.
5. The student should be able to describe existing surveillance systems and explain how their physical parameters influence their operation.

SE 2002 CONCEPTS OF SCIENCE AND ENGINEERING I (4-0)

Course Description:

The student will develop familiarity with the representation of systems in terms of signal flow diagrams, the features of continuous and sampled signals, the circuit performance of basic electrical components singly and in simple series and parallel circuits, the concept of system frequency response, the use of feedback with and without compensating networks, the concepts of stability and instability in control systems, the operation of logic gates, the structure of computer systems, the nomenclature and propagation characteristics of electromagnetic waves, the principles of radar detection and jamming, the general characteristics of radar signals and their relationship to operational parameters of the radar, the concept of antenna gain and sidelobes. Prerequisite: MA 2310

SE 2003 CONCEPTS OF SCIENCE AND ENGINEERING II (4-0)

Course Description:

The student will develop a familiarity with the properties of image formation, the nomenclature and characteristics of the infra-red spectrum, the general characteristics of infra-red detectors, the optics of camera systems, the photographic process and photographic processing, color synthesis and pseudo color images, the principles of photographic measurement, the significant tradeoffs effecting the performance of photographic systems, the nature of spectral analysis, the relationship between the duration and bandwidth of signals, the representation of signals in terms of their spectral components, the chief methods employed to modulate a signal on a carrier and their associated modems, the properties of commonly used communications channels, the concepts of frequency division and time division multiplexing, the relationship between bandwidth and required sampling rate, and the

operation of superhetrodyne receivers. Prerequisite: SE 2002

Science and Engineering Course Objectives:

1. The student will develop a familiarity with the portion of the vocabulary of science and engineering associated with communications, surveillance, control, guidance, and computer systems.

2. The student should obtain a qualitative understanding of the scientific and engineering principles associated with detection systems, communications systems, photographic systems, guidance and control systems, and computer systems.

3. The student will learn to analyze a system in terms of functional units and to construct block diagrams of systems.

SE 3004 SURVEY OF MILITARY TECHNOLOGY I (4-0)

Course Description:

The student will become familiar with search and tracking radar systems including track-while-scan systems, communications systems including spread spectrum techniques, synthetic aperture techniques, the characteristics of air-borne radars including pulsed doppler radars, various scan techniques, and infra-red and other electro-optical devices. Prerequisite: SE 2003 and SECRET Clearance (NOFORN)

SE 3005 SURVEY OF MILITARY TECHNOLOGY II (4-0)

Course Description:

The student will become familiar with concepts in fluid dynamics and aerodynamics including boundary layer modification and control, with the properties of aircraft, aerospace and marine propulsion systems, with the elements of aircraft configuration design including an understanding of the relationship between visible features and system performance with the characteristics of V/STOL systems, with "fly-by-wire" and other control configured vehicles, with the characteristics and elements of strategic and cruise missiles, with the effects of nuclear weapons, with the strategic resources and limitations of current U. S. and Soviet submarines, with passive and active sonar systems, and with the surveillance capabilities of current and projected acoustic systems on various platforms. Prerequisite: SE 2003 and SECRET Clearance (NOFORN)

Military Technology Course Objectives:

1. The student will become familiar with the vocabulary and operating principles associated with current electronic and electro-optical systems.
2. The student will understand the principles of active and passive electronic warfare including the dynamic relationship between ECM and ECCM.

3. The student will know the types of information available from ESM systems and the significance of this information.

4. The student will know the characteristics of various signal collection receivers, and the design trade-offs between infra-red and laser systems.

5. The student will know the various principles of missile guidance and techniques employed in SAM, SSM, and ASM systems.

6. The student will become familiar with the vocabulary and operating principles of nuclear weapons, aerodynamic and propulsion systems, both marine and air, and of both tactical and strategic missile systems.

7. The student will prepare a paper which examines specific Soviet systems and the Soviet approach to systems design.

SE 4006 SEMINAR IN TECHNOLOGICAL ASSESSMENT (4-0)

Course Description:

The student will develop familiarity with the standard methodologies of technological assessment and forecasting, their requirements and problems, will conduct a technological assessment or forecasting exercise, will become familiar with studies of the future roles, missions, and weapons systems requirements of the U. S. and Soviet Navies, will become familiar with the missions and capabilities of U. S. Naval laboratories, will become familiar with the system employed by the U. S. for system acquisition, will examine case studies related to the development of innovative military systems, examine the available literature on the research and development resources of the Soviet Navy and the process of weapons system acquisition in the Soviet Union. Prerequisites: SE 3004, SE 3005, and SECRET Clearance (NOFORN)

Course Objectives:

1. The student will become familiar with the techniques and methods employed in technological assessment and forecasting.
2. The student will study specific assessments and forecasts associated with weapon systems and weapon system technologies.
3. The student will study U. S. and Soviet resources for research and development, and methods of weapons systems acquisition.
4. The student will be introduced to specific technical intelligence techniques through readings in the classified and unclassified literature, guest lectures and discussions.

NATIONAL SECURITY AFFAIRS SEQUENCE

Sequence Description:

The objective of the Security Affairs Sequence is to delineate the interface between international politics, defense resource management and weapons technology. It is this complex and multi-faceted environment which impacts upon the problems to which naval intelligence must respond. Pursuant to this objective, this sequence describes and analyzes the security objectives of the major powers, assesses their capabilities, and evaluates their intentions and strategies with particular emphasis on the employment of maritime power. Further, it synthesizes the political, technological, economic, social and ideological forces that motivate the actors in the international system and models varying scenarios of inter-action between them. It then relates these factors to the conduct of defense policy in the United States, the perception of specific threats, and the response of the defense establishment to them. Students with previous education in National Security Affairs may proceed directly to advanced courses.

GV 3262 THEORY AND PRACTICE OF INTERNATIONAL POLITICS (4-0)

Course Description:

A systematic analysis of international relations at three levels - international systems, the national decision-making system, and the individual decision maker. The emphasis is on the actors, interactions and environmental factors which define the international system. Specific topics include: the systems approach to explaining international relations; power and capability analysis; conflict; alliances, integration and international cooperation; explanations of national security decision-making to include the rational, organizational process, bureaucratic politics, incremental and crisis decision-making models; psychological theories applied to international relations to include frustration-aggression, relative deprivation, game theory and the operational code methodology.

Course Objectives:

1. The student will become acquainted with systems theory as applied to international relations, and experienced in using it to explain a variety of international events and trends.
2. The student will study the concepts of power and influence, and how they are used in explaining international relations.
3. The student will examine the concept of political community and its applicability to the current and future international system.
4. The student will analyze the basic elements of foreign policy decision-making emphasizing the rational, organizational and political approaches.
5. The student will gain a knowledge of the elements and effects of crisis decision-making.

6. The student will become experienced in applying social-psychological theories, such as frustration-aggression and game theory, to the current international system.

7. The student will be introduced to the operational code methodology, to include a case study of relevant decision-makers.

GV 3400 PROBLEMS OF GOVERNMENT AND SECURITY IN THE SOVIET UNION (4-0)

Course Description:

This course will provide an in-depth analysis of the communist control of Russia; Stalinism; interlocking directorate of party and government; the KGB; the resource base; the strengths and vulnerabilities of the economic organization; the defense structure; military components and doctrines; the Warsaw Pact; allocation of military forces; and the perception of threats and opportunities.

Course Objectives:

1. The student will become familiar with organization and functions of the Soviet economic system.
2. The student will learn the organization and functions of the system of party and government.
3. The student will study organization and functions of the Soviet security systems.
4. The student will analyze military determinants behind the conduct of Soviet international security affairs.

GV 3061 AMERICAN NATIONAL SECURITY POLICY (4-0)

Course Description:

An analysis of the interface between the international system, the defense decision-making process, and weapon technology. Topics to be studied in this course are deterrence theory, decision making models, the political economy of defense, the budgetary process in the Executive Branch, and Congressional influences on defense policy. The course will also include a survey of significant defense decisions in the post-1945 period.

Course Objectives:

1. The student will understand the nature, value, and limitations of models in the policy sciences.
2. The student will become familiar with the range of strategic options available to the United States in the post World War II era.
3. The student will know the general stages of the budgetary process and rationale for planning, programming and budgeting (PPB).
4. The student will understand the nature of public finance and political constraints on the defense budget.
5. The student will understand the mutual defense system of the United States.
6. The student will survey the basic causes for international conflict.
7. The student will understand the operation of the American Presidency and the organizational structure of JCS, NSC, and the Departments of State and Defense.
8. The student will know the defense policy making committees in the U. S. Congress.

GV 3420 SOVIET NAVAL AND MARITIME STRATEGY (4-0)

Course Description:

Examination of the roles played by the Soviet Navy, Merchant Marine, Fishing Fleet, and Oceanological Establishments in securing the objectives of the Soviet Government. Topics include: geographic factors affecting Soviet ocean strategies; non-naval maritime strategy; overview of pre-1953 naval strategy trends; international and domestic factors affecting post-1953 naval strategy; development of Soviet naval warfare capabilities; doctrinal and functional analysis of post-1953 trends in naval strategy; command structure; personnel training; law of the sea positions; US-Soviet naval interaction.

Course Objectives:

1. The student will become familiar with the structure of the Soviet naval, merchant marine, fishing, and oceanological establishments.
2. The student will analyze the functions they have performed and currently perform in light of Soviet national objectives, national strategy, international political strategy, overall military strategy, and finally, naval and maritime strategy per se.
3. The student will learn the processes by which those functions are performed, and become acquainted with the environment in which they are performed with emphasis on the following:
 - a. The process of developing and maintaining the strength and capabilities of the Soviet naval and maritime establishments and;
 - b. The process of exercising and utilizing their strengths and capabilities;
 - c. The geography of the Soviet Union and surrounding waters;
 - d. The existence of U.S. seapower.

GV 3610 PROBLEMS OF GOVERNMENT AND SECURITY

IN EAST ASIA AND THE PACIFIC OCEAN (5-0)

Course Description:

Problems of industrialization, revolution, and conflict in the East Asian states. China's relations with contiguous states; Sino-Soviet state, party, and ideological differences; Chinese military and naval command structure; Japan's new dynamic position; the U. S.-Japanese security problem; problems of the two Koreas; Soviet and American Far Eastern interests and policies; analysis of present and future naval capabilities and strategies of East Asian states.

Course Objectives:

1. The student will determine the organization and functions of the governments and political parties in the East Asian area.
2. The student will be able to define the resource, agricultural, trade and economic development problems of the region.
3. The student will delineate the historic and strategic interests of each state and identify the methods and capabilities with which current perceived policy is being pursued by each.
4. The student will analyze the relationships of these states with the superpowers with particular focus on the nature of the Sino/Soviet conflict and perceived mutual interest with and policies toward the United States.
5. The student will survey the military forces of each state and become particularly knowledgeable concerning naval capabilities, strategies, command structure, and operational employment of the forces concerned.

GV 4161 AMERICAN NATIONAL SECURITY OBJECTIVES AND NET ASSESSMENT (4-0)

Course Description:

The course will examine the foreign and defense policy objectives of the United States as they relate to the general formulation and administration of U.S. national security policy and to the more specific process of net assessment. Topics to be covered in the course include: national planning in the U.S. goal analysis, threat analysis, constraints on policy making, an overview of policy models, PPB, and the interface of technical capability on defense policy.

Course Objectives:

1. The student must define and defend his conception of the contemporary defense objectives of the United States.
2. The student must be able to discuss the utility and limitations of various models used in the policy sciences.
3. The student must differentiate between threat analysis and net assessment.
4. The student must understand the operations of the present defense planning cycle.
5. The student must be able to integrate information concerning PPB, weapons technology, and strategic planning.
6. The student must take part in a net assessment exercise in which he demonstrates his ability to integrate the information and methodologies gained from the programs.

ANALYTICAL AND MANAGEMENT SEQUENCE

Sequence Description:

This sequence introduces the student to quantitative techniques, substantive research methods, and the primary concepts of resource management. From mathematical preparatory courses it progresses to methodological survey of various means to structure given problems, formulate possible solutions, organize and compile the supporting data, assess the reliability and communicate the significance of the results obtained. The methodological courses also include study of both systems and aggregate data analysis. Management problems explored in the sequence include contracting, civilian personnel, planning/programming/budgeting (PPB), program evaluation and review techniques (PERT), management by objectives (MBO), and organizational development (OD). Also included are the management techniques applicable to automated data processing systems, their design, basic interface operations, and associated security problems. Throughout the sequence special emphasis is placed on the application of the quantitative techniques, other methodologies and substantive material assimilated to problems of current interest to naval intelligence.

MA 2310 MATHEMATICAL PREPARATION FOR NAVAL INTELLIGENCE I (5-3)

Course Description:

A review of algebraic, logarithmic, sinusoidal and exponential functions with graphical and numerical emphasis. Calculation with hand-held and mini-programmable computers. Differentiation and integration, both analytical and numerical, with practical emphasis, leading to elementary differential equations. Fourier and spectral analysis.

MA 2311 MATHEMATICAL PREPARATION FOR NAVAL INTELLIGENCE II (5-2)

Course Description:

Descriptive statistics and data presentation. Discrete probability and the binomial and Poisson distributions. Continuous probability, the normal distribution and the central limit theorem. Hypothesis testing, estimation and correlation. Small samples, Student's t-distribution, the Chi-square distribution. Single and multi-dimensional regression, computation, data processing and analysis.

Both courses emphasize a verbal and graphic approach to the employment of mathematics as a communications tool. They focus on application vice theory and feature both laboratory work and "hands on" computer operation to reinforce and visualize the concepts employed.

Mathematics Course Objectives:

1. Students having divergent mathematical backgrounds and interests will prepare to recognize and apply concepts and tools learned to physical problems encountered in the science and engineering tract, as well as methodologies employed in the analytical sequence.

2. Students will be provided the opportunity for increasing their facility with mathematical language and will develop a capacity to use

mathematics to assist in understanding and communicating technological concepts.

3. The student will be provided a positive orientation to the ordering and mathematical manipulation of both physical and analytical data.

4. The student will be able to evaluate mathematical and/or statistical presentations, recognize their constraints and limitations, and detect any particular bias or slant.

GV/OS 3510 ORGANIZATIONAL THEORY AND BEHAVIOR

Course Description:

This course will be concerned with three general areas of management as they apply to Naval Intelligence. These areas are organizational theory from Weber to the present, public personnel administration, and public finance.

Course Objectives:

1. The student must be able to define and explain the most important schools of administrative/managerial thought.
2. The student will understand the nature of informal organizations.
3. The student will become familiar with such concepts as organizational culture, compliance theory, and authority.
4. The student will understand various theories of motivation.
5. The student will know the general structure of the Civil Service Commission and its general philosophy.
6. The student will be introduced to the labor relations situation in the Federal Government.
7. The student will survey such concepts as organizational development (OD), process consultation (PC), and management by objectives (MBO).
8. The student will understand the rationale and substance of Joint Strategic Objectives Plan 1 and 2 (JSOP), Planning Program Guidance Memorandum (PPGM), Joint Forces Memorandum (JFM), and Program Objectives Memorandum (POM).
9. The student will be introduced to military cost analysis.

GV 3062 INTELLIGENCE DATA ANALYSIS (4-2)

Course Description:

A survey of methods and techniques for the synthesis, analysis, interpretation, and reporting of intelligence data. Topics include research design, sampling methods, scaling techniques, content analysis, events data analysis, correlation and regression, factor analysis, cross-tabulation and cluster analysis. The student will be exposed to a wide spectrum of data relating to intelligence problems, with particular emphasis on national maritime capabilities and actions. Prerequisite: MA 2311

Course Objectives:

1. The student will gain experience in research design, with emphasis on the formulation, operationalization and testing of hypotheses.
2. The student will become acquainted with the special requirements of policy research and intelligence problems.
3. The student will employ methods which allow him to assess the validity and reliability of intelligence data.
4. The student will learn a variety of scaling techniques, such as Guttman, multi-dimensional and factor analysis, and gain experience in applying these techniques to intelligence data.
5. The student will be given the opportunity to utilize the computer to analyze intelligence data. Specifically, each student will construct a file, alter it, and conduct basic statistical analysis such as cross-tabulation, correlation and regression analysis.

OA 3207 OPERATIONS ANALYSIS FOR NAVAL INTELLIGENCE (4-0)

Course Description:

An introduction to the philosophy and methodology of operations research, with special emphasis on specific topics: decision-making under risk and uncertainty, CPM-PERT, quantitative forecasting techniques, resource allocation, queues, detection analysis. Prerequisite: MA 2311

Course Objectives:

1. The student will be introduced to the philosophy and methodology of operations research and its applications to Naval Intelligence.
2. The student will gain an overview of quantitative methodology designed to assist in the analysis of a variety of operating and managerial decision problems.
3. The student will develop an appreciation for the OR/MS approach and an ability to interpret knowledgeably the results of quantitative studies.

OS/GV 4207 TOPICS IN THE ANALYSIS OF INTELLIGENCE PROBLEMS (4-0)

Course Description:

Examination of specific intelligence problems with emphasis on problem and project formulation, technical execution, and interpretation and communication of study results. Topics which may be considered include collection system design and management, data analysis and interpretation, and quantification of intangible factors. Prerequisite: OA 3207

Course Objectives:

1. The student will integrate the methods and techniques developed in the analytical sequence and provided experience in their application through examination of specific problems.
2. The student will be provided experience in a problem-solving setting which crosses disciplinary bounds, through the use of projects involving application of theory from the analytic sequence to problems generated from all phases of the curriculum including Security Affairs and Defense Technology.
3. The student will gain experience in all phases of a quantitative study from problem generation to the reporting of study results.

GV 4063 NAVAL THREAT ANALYSIS (4-0)

Course Description:

This course examines various threat scenarios relative to employment of naval forces, equipments and systems. It focuses on naval warfare in an operational environment and how well their equipments and systems are suited to specific missions and requirements. It employs operational and exercise data to derive and analyze tactics employed, system performance, and patterns of activities. It seeks to develop threat scenarios that are step by step indicators of naval intentions and activities. Prerequisite: GV 3420, GV 3062, and OS 3207

Course Objectives:

1. The student will employ actual naval intelligence methodology, as well as methodologies introduced in previous courses to analyze naval activities.
2. The student will become versed in command and control procedures, ocean surveillance problems and tactical approach to strike warfare, ASW, amphibious operations and electronic warfare.
3. The student will become familiar with and employ various products available from the naval intelligence community.
4. The student will participate in an actual exercise analysis.

OS 3184 MANAGEMENT INFORMATION SYSTEMS FOR NAVAL INTELLIGENCE (4-0)

Course Description:

Topics covered include the following: introduction and history of computers; COBOL programming; hardware, software, program and file design; overview of management information systems; theory and practice with focus on the Naval Intelligence Processing System (NIPS), World-Wide Military Command and Control System (WWMCCS), the Ocean Surveillance Information System (OSIS), and Automated Data Processing (ADP) Security. Prerequisite: MA 2311 or equivalent.

Course Objectives:

1. The student will survey the management techniques, and computer hardware, software, and programming capabilities applicable to computer systems.
2. The student will be introduced to specific information systems employed for intelligence and command and control purposes.

ELECTIVES

NATIONAL SECURITY AFFAIRS

GV 3160 Comparative Government
GV 3164 Comparative Ideologies
GV 3275 International Law
GV 3280 Nuclear Weapons and Foreign Policy
GV 3900 International Organization
GV 3901 Ocean Policy
HI 3032 History of Recent Insurgency Warfare
MN 3109 The Military and Society
GV 4140 Problems of Security Assistance and Arms Transfers
GV 3011 Political Terrorism

AREA STUDIES

Middle East

GV 3300 Problems of Government and Security in the Middle East
GV 3310 North Africa: Problems of Government and Security in the Maghreb
GV 3320 International Relations and Security Problems in the Middle East
GV 3330 Military Geography and History of the Middle East
GV 3340 Language and Culture of the Arab World
GV 4300 Seminar in Problems of Security in the Middle East

Soviet Union

GV 3410 Soviet Security Affairs
GV 3430 Soviet Military Strategy
GV 4400 Seminar in Soviet Security Problems

Asia

GV 3600 Problems of Government and Security in Southeast Asia and Adjacent Seas
GV 3610 Problems of Government and Security in East Asia and the Pacific Ocean
GV 3620 Problems of Government and Security in South Asia and the Indian Ocean
GV 4600 Seminar on Asian Security Affairs

Western Europe

GV 3268 Problems of Government and Security in Contemporary Europe
GV 3700 Strategic Geography and the Recent History of Europe
GV 3710 International relations and Security Problems of the Mediterranean
GV 4700 Seminar in Political and Security Problems of Western Europe

PUBLIC POLICY ANALYSIS

MN 3106 Behavioral Science
MN 3109 Military and Society
MN 3121 Leadership and Group Behavior
MN 3125 Organizational Behavior and Administration
MN 3130 Macro Economic Theory
MN 3141 Micro Economics
MN 3142 International Trade and Development
MN 3146 Comparative Economic Systems
MN 3170 Defense Resource Allocation
OS 2661 Introduction to Decision Analysis
OS 3201 Fundamentals of Operations Analysis
OS 3202 Methods of Operations Analysis/Systems Analysis
OS 3204 Defense Resource Analysis

ELECTRICAL ENGINEERING

EE 2222 Electronic Fundamentals I
EE 2223 Electronic Fundamentals II
EE 2224 Communication and Digital Electronics
EE 2421 Introduction to Communications Technology
EE 2422 Communications Systems I
EE 2423 Communications Systems II
EE 2424 Signal Transmission Systems
EE 3425 Communication Systems Analysis

MANAGEMENT

MN 3101 Personnel Management and Labor Relations
MN 3120 Planning and Control
MN 3124 Analysis of Bureaucracy
MN 3125 Organizational Behavior and Administration
MN 3152 Managerial Finance

LIST OF FACULTY MEMBERS

DEPARTMENT OF NATIONAL SECURITY AFFAIRS

BOYD HUFF, Chairman, Professor of Government and History (1958)*; B.A., Univ. of Wash. 1938; M.A. Brown Univ., 1941; Ph.D., Univ. of California at Berkeley, 1955.

FRANK M. TETI, Academic Associate, Associate Professor of Political Science (1966); B.A., Los Angeles State College, 1960; M.A., 1962; Diploma, Institute of World Affairs, 1961; Ph.D., Syracuse Univ., 1966; M.P.A., 1972.

JOHN W. AMOS, II, Assistant Professor of Political Science (1970); B.A. Occidental College, 1957; M.A., Univ. of California at Berkeley, 1962; Ph.D., 1972.

DONALD C. DANIEL, Assistant Professor of Political Science; (1972); A.B. Holy Cross College, 1966; Ph.D., Georgetown Univ., 1971.

STEPHEN JURIKA, Adjunct Professor of Political Science (1975); B.S., U.S. Naval Academy, 1933; M.A., George Washington Univ., 1957; Ph.D., Stanford Univ., 1962.

EDWARD J. LAURANCE, Assistant Professor of Political Science (1972); U. S. Military Academy, 1960; M.A.: Temple Univ., 1970; Ph.D., Univ. of Penn., 1973.

THOMAS H. BARR, CDR, USN Curricular Officer for the Naval Intelligence/National Security Affairs Programs (1975); B.A. Stanford Univ, 1960.

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